

## **SYSTEM AND METHODS FOR PERFORMING SURGICAL PROCEDURES AND ASSESSMENTS**

### **ABSTRACT OF THE DISCLOSURE**

5        The present invention involves systems and related methods for performing surgical procedures and assessments, including the use of neurophysiology-based monitoring to: (a) determine nerve proximity and nerve direction to surgical instruments employed in accessing a surgical target site; (b) assess the pathology (health or status) of a nerve or nerve root before, during, or after a surgical procedure; and/or (c) assess pedicle integrity before, during  
10      or after pedicle screw placement, all in an automated, easy to use, and easy to interpret fashion so as to provide a surgeon-driven system.